Subject Index 1951–1952

ACHIEVEMENT TESTS, SOPHOMORE. J. A. Hill 4, 210
ACTION, EDUCATION FOR. W. L. Everitt 4, 195
ADEQUACY AND STANDARDS OF ENGINEERING EDUCATION. E.C.P.D. Report 5, 249
AGRICULTURAL ENGINEERING. E. W. Lehmann 5, 286
AGRICULTURAL ENGINEERS, CURRICULUM FOR. L. W. Hurlbut 9, 451
AN ADVENTURE IN ENGINEERING EDUCATION. J. T. Thompson and W. W. Ewell 10, 493
APPLICANTS, TESTS FOR. A. P. Johnson 10, 497
A.S.E.E. MISSION TO JAPAN. H. L. Hazen 10, 481
ATOMIC ENERGY EDUCATION. H. H. Armsby 3, 153

BACK TO FUNDAMENTALS. H. I. Tarpley 10, 504
BIBLIODYNAMICS. G. S. Bonn 3, 173
BIG AND LITTLE NUMBERS. H. R. Grumann and R. E. Newton 2, 114
BRIDGE BETWEEN IGNORANCE AND UNDERSTANDING. F. M. Dawson .. 1, 13

CAREER POSSIBILITIES FOR TEACHERS. L. O. Stewart 4, 222
CO-OP ENGINEERS, TRAINING FOR. T. Hand 7, 317
COOPERATION BETWEEN FACULTY AND INDUSTRY. R. T. Borth 7, 354
COOPERATIVE EDUCATION IN MODERN INDUSTRY. C. R. Osborn 8, 406
COOPERATIVE GRADUATE STUDY. N. W. Dougherty 4, 200
COOPERATIVE RELATIONSHIPS BETWEEN ENGINEERING COLLEGES AND SECONDARY SCHOOLS. G. K. Dreher ... 5, 255
CURRICULUM FOR AGRICULTRUAL ENGINEERS. L. W. Hurlbut 9, 451

DARTMOUTH COLLEGE, ANNUAL MEETING, A.S.E.E., 1952 ..... 7, 312
DESIGN RELATED TO RESEARCH. F. McFarland 7, 349
DETERMINING TEACHING OBJECTIVES. F. Kerekes 7, 323
DOCTORAL STUDY IN INDUSTRIAL ENGINEERING. N. N. Barish 9, 455
DOUBLE INTEGRAL, A. E. A. Whitman 10, 513

ECONOMICS AND ENGINEERING ECONOMY. B. E. Goetz 9, 436
EDUCATION FOR ACTION. W. L. Everitt 4, 195
EDUCATION, FORCES AFFECTING. N. A. Christensen 9, 429
EDUCATION IN LAND-GRANT INSTITUTIONS. E. E. Day 7, 331
EFFECTIVENESS OF TEACHING AIDS. C. W. Muhlenbruch 3, 146
E.J.C. MANPOWER COMMISSION OBJECTIVES. C. H. Brown 2, 70
ELECTRICAL ENGINEERING, NUCLEAR AND. E. Weber 5, 280
ELECTRONICS AND COMMUNICATIONS OPTIONS—WHY? J. D. Ryder 9, 463
ENERGY IN ADIABATIC EXPANSION. W. B. Nordquist 1, 52
ENGINEER—A PARABLE. D. B. Steinman 10, 489
ENGINEER AND SALES. J. Gammell 5, 291
ENGINEERING CURRICULUM, QUESTIONS CONCERNING THE. L. E. Grinter ... 5, 261
ENGINEERING EDUCATION, ADEQUACY AND STANDARDS OF. E.C.P.D. Report 5, 249
ENGINEERING EDUCATION, AN ADVENTURE IN. J. T. Thompson and W. W. Ewell 10, 493
ENGINEERING ENGLISH: A NEW STRATEGY. R. B. Vowles 8, 392
ENGINEERING ENROLLMENTS AND DEGREES, 1951. R. C. Storey and H. H. Armsby 6, 1
ENGINEERING MANPOWER. D. G. Mitchell 3, 134
ENGINEERING PLANNING. H. S. Osborne 3, 121
ENGINEERING RESEARCH IN THE NATIONAL SCIENCE FOUNDATION. P. E. Klopsteg 5, 263
ENGINEERING SHORTAGE CONTINUES, THE. S. C. Hollister 2, 67
ENGINEERS, SELECTION OF. A. P. Johnson 7, 344
ENROLLMENT STATISTICS 6, 4

ENVELOPES, ON. H. W. Brinkman and R. A. Rosenbaum....4, 235
EVALUATION, THE YEAR OF. S. C. Hollister....1, 4
EXPERIMENT, A PHOTOELASTIC. T. T. Liddicoat....1, 36
EXTENSION INSTRUCTION. C. W. Beese. 4, 204

FORCES AFFECTING EDUCATION. N. A. Christensen....9, 429
FOUR YEAR VS. FIVE YEAR COURSE. G. J. Barker....9, 460
FUNDAMENTALS, BACK TO. H. I. Tarpley....10, 504

GIFT OF ENGINEERING. L. E. Grinter...7, 311
GRADUATE PROGRAM IN INDUSTRIAL ENGINEERING. H. O. Davisdon and L. G. Mitten....4, 217
GRADUATE STUDENTS, THERMODYNAMICS FOR. A. B. Cambel....3, 177
GRADUATE STUDY, COOPERATIVE. N. W. Dougherty....4, 200
GRADUATE STUDY IN STRUCTURAL ENGINEERING. A. A. Brielmaier....1, 33
GRADUATE WORK IN MACHINE DESIGN. R. R. Slaymaker and D. K. Wright3, 164
GRADUATION WORTHWHILE?, IS LESS THAN. C. J. Freund....1, 6
GRAPHICS, A PHILOSOPHY OF. J. T. Rule 9, 467

HEAT TRANSFER IN NUCLEAR REACTORS. R. N. Lyon....2, 88
HIGHER EDUCATION AND THE PROBLEMS OF THIS DECADE. J. H. Miller....8, 379
HOLLISTER, S. C., PRESIDENT, A.S.C.E., 1951–52....1, 1
HOW CAN A.S.C.E. ASSIST YOUNG INSTRUCTOR? H. H. Armsby....8, 394
HOW THE LIBRARY CAN SERVE. J. H. Moriarty....9, 440

IMPROVED PREPARATION FOR COLLEGE. C. E. MacDonald....9, 432
INDUSTRIAL ENGINEERING, DOCTORAL STUDY IN. N. N. Barish....9, 455
INDUSTRIAL ENGINEERING EMPLOYMENT SURVEY. G. L. Thuering....7, 359
INDUSTRIAL ENGINEERING, GRADUATE PROGRAM IN. H. O. Davidson and L. G. Mitten....4, 217
INDUSTRAIL TRAINING AIDS. J. Gammell....10, 502
INFINITE SPHERE, THE. A. E. Sanderson....8, 402
INFORMATION SERVICES AT A.E.C. D. Puleston....2, 93
INTEGRAL, A DOUBLE. E. A. Whitman 10, 513

IS LESS THAN GRADUATION WORTHWHILE? C. J. Freund....1, 6

JAPAN, A.S.E.E. MISSION TO. H. L. Hazen....10, 481

LAMME AWARD RECIPIENT....1, 24
LAND-GRANT INSTITUTIONS, EDUCATION IN. E. E. Day....7, 331
LIBRARY CAN SERVE, HOW THE. J. H. Moriarty....9, 440
LIFE IS SHORT. C. J. Freund....8, 399
LUSTRE OR GLITTER? J. A. Hannah....1, 18

MACHINE DESIGN, GRADUATE WORK IN. R. R. Slaymaker and D. K. Wright....3, 164
MACQUIGG, CHARLES ELLISON—IN MEMORIAM....9, 466
MANPOWER COMMISSION OBJECTIVES, E.J.C. C. H. Brown....2, 70
MANPOWER, ENGINEERING. D. G. Mitchell....2, 134
MANPOWER, PROBLEM OF SCIENTIFIC. M. H. Trytten....2, 75
MATERIALS IN NUCLEAR ENGINEERING. D. H. Gurinsky....2, 90
MATH ENTRANCE REQUIREMENTS PROBLEM. L. A. Rose....8, 412
MATHEMATICAL ANALYSIS. R. Oldenburger....3, 170
MATHEMATICS, RETENTION OF. J. W. Cell....1, 47
MINUTES OF THE EXECUTIVE BOARD MEETING....1, 54
MINUTES OF THE EXECUTIVE BOARD MEETING....3, 185
MINUTES OF THE EXECUTIVE BOARD MEETING....5, 298
MINUTES OF THE GENERAL COUNCIL MEETING....1, 58
MINUTES OF THE GENERAL COUNCIL MEETING....5, 301
MINUTES OF THE 59TH ANNUAL MEETING....1, 64
MISSION TO JAPAN, A.S.E.E. H. L. Hazen....10, 481

NATIONAL SCIENCE FOUNDATION DEVELOPMENTS. A. A. Potter....2, 81
NATIONAL SCIENCE FOUNDATION, ENGINEERING RESEARCH IN. P. E. Klopsteg....5, 263
NATURE OF GOOD TEACHING, THE R. L. Sweigert....1, 29
NEW HAMPSHIRE—VERSATILE VACATIONLAND. J. A. Bennett....4, 191

NON-ENGINEER LOOKS AT STUDENTS. A. M. Buchan....4, 229
NUCLEAR AND ELECTRICAL ENGINEERING. E. Weber....5, 280
NUCLEAR ENGINEERING, MATERIALS IN. D. H. Gurinsky....2, 90
NUCLEAR REACTORS, HEAT TRANSFER IN. R. N. Lyon....2, 88

PARABLE, THE ENGINEER—A. D. B. Steinman....10, 489
PETROLEUM, GEOLOGY AND GEOPHYSICS. J. T. Wilson....5, 295
PHILOSOPHY OF GRAPHICS, A. J. T. Rule....9, 467
PHOTOELASTIC EXPERIMENT, A. T. T. Liddicoat....1, 36
POINT IV. G. H. Bennett....2, 139
POLYTROPIC PROCESS. E. J. Wellman....9, 474
PREPARATION FOR COLLEGE, IMPROVED. C. E. MacDonald....9, 432
PROBLEM OF SCIENTIFIC MANPOWER. M. H. Trytten....2, 75
PUBLIC RELATIONS, SCIENCE AND. J. I. Mattill....10, 507

QUESTIONS CONCERNING THE ENGINEERING CURRICULUM. L. E. Grinter....5, 261

REPORT OF THE STUDENT-FACULTY EVALUATION COMMITTEE....8, 415
RESEARCH AND DEVELOPMENT. E. A. Walker....3, 126
RESEARCH, DESIGN RELATED TO. F. McFarland....7, 349
RESOURCES FOR UNIVERSITY RESEARCH. A. F. Spilhaus and J. I. Mattill....5, 270
RETENTION OF MATHEMATICS. J. W. Cell....1, 47

SALES, THE ENGINEER AND. J. Gammell....5, 291
SCIENCE AND PUBLIC RELATIONS. J. I. Mattill....10, 507
SECONDARY SCHOOLS, COOPERATIVE RELATIONSHIPS BETWEEN ENGINEERING COLLEGES AND. G. K. Dreher....5, 255
SELECTION OF ENGINEERS. A. P. Johnson....7, 344
SHORTAGE CONTINUES, THE ENGINEERING. S. C. Hollister....2, 67
SLIDE RULE INSTRUCTION. H. K. Fulmer....9, 474
SOPHOMORE ACHIEVEMENT TESTS. J. A. Hill....4, 210
SPHERE, THE INFINITE. A. E. Sanderson....8, 402
STANDARDS AND THE YOUNG ENGINEER. T. D. Jolly....1, 43
STRUCTURAL ENGINEERING, GRADUATE STUDY IN. A. A. Brielmaier....1, 33
STUDENT EVALUATION OF TEACHING. H. W. Case....9, 446
STUDENT-FACULTY EVALUATION COMMITTEE, REPORT OF THE....8, 415
STUDENTS, NON-ENGINEER LOOKS AT. A. M. Buchan....4, 229

T-SQUARE PAGE....3,181
TEACHERS, CAREER POSSIBILITIES FOR. L. O. Stewart....4, 222
TEACHING AIDS, EFFECTIVENESS OF. C. W. Muhlenbruch....3, 146
TEACHING OBJECTIVES, DETERMINING. F. Kerekes....7, 323
TEAMS, WINNING. E. C. Koerper....10, 489
TECHNICAL INSTITUTE COMES OF AGE. E. E. Booher....8, 337
TESTS FOR APPLICANTS. A. P. Johnson 10, 597
THAYER SCHOOL OF ENGINEERING....8, 375
THEORY OF WORK HABITS. W. C. Krathwohl....3, 157
THERMODYNAMICS FOR GRADUATE STUDENTS. A. B. Cambel....3, 177
TIMELY TIPS
ENERGY IN ADIABATIC EXPANSION. W. B. Nordquist....1, 52
TEACHING DEFLECTIONS. M. W. Jackson....2, 112
BIG AND LITTLE NUMBERS. H. R. Grumann and R. E. Newton....2, 114
ROLLING WITH SLIPPING. S. R. Uniechowski....3, 183
ON ENVELOPES. H. W. Brinkman and R. A. Rosenbaum....4, 235
THERMAL EFFICIENCIES. S. Comassar....4, 237
QUESTIONNAIRES. A. M. Hill....7, 363
DEFLECTIONS. G. Sonnemann....7, 363
DIRECT APPROACH TO DEFLECTIONS. R. H. Upson....8, 422
POLYTROPIC PROCESS. E. J. Wellman....9, 476
VALIDITY OF PRE-ENGINEERING TEST. R. C. Moore....10, 512
A DOUBLE INTEGRAL. E. A. Whitman....10, 513
TRAINING AIDS, INDUSTRIAL. J. Gammell....10, 502
TRAINING FOR CO-OP ENGINEERS. T. Hand....7, 317

UNITY ORGANIZATION. T. H. Evans....2, 86
UTILIZATION OF ENGINEERING TALENT. J. C. McKeon....8, 388

VALIDITY OF PRE-ENGINEERING TEST. R. C. Moore....10, 512

WESTINGHOUSE AWARD RECIPIENT....1, 27
WINNING TEAMS. E. C. Koerper....10, 498
WORK HABITS, THEORY OF. W. C. Krathwohl....3, 157

YEAR OF EVALUATION, THE. S. C. Hollister....1, 4
YEAR-IN INDUSTRY FOR EDUCATORS. D. L. Arm....10, 490
YOUNG ENGINEER, STANDARDS AND THE. T. D. Jolly....1, 43
YOUNG INSTRUCTOR?, HOW CAN A.S.E.E. ASSIST. H. H. Armsby....8, 394

Author Index

ARM, D. L. A "Year-in-Industry" for Educators 10, 490
ARMSBY, H. H. Atomic Energy Education 3, 153
ARMSBY, H. H., AND STORY, R. C. Engineering Enrollments and Degrees, 1951 . . . . . 6, 1
ARMSBY, H. H. How Can A.S.E.E. Assist Young Instructor? 8, 394

BARISH, N. N. Doctoral Study in Industrial Engineering 9, 455
BARKER, G. J. Four Year vs. Five Year Course 9, 460
BEESE, C. W. Extension Instruction . . . 4, 204
BENNETT, H. G. Point IV 3, 139
BENNETT, J. A. New Hampshire—Versatile Vacationland 4, 191
BONN, G. S. Bibliodynamics 3, 173
BOOHER, E. E. Technical Institute Comes of Age 7, 337
BORTH, R. T. Cooperation Between Faculty and Industry 7, 354
BRIELMAIER, A. A. Graduate Study in Structural Engineering 1, 33
BRINKMAN, H. W., AND ROSENBAUM, R. A. On Envelopes 4, 235
BROWN, C. H. E.J.C. Manpower Commission Objectives 2, 70
BUCHAN, A. M. Non-Engineer Looks at Students 4, 229

CAMBEL, A. B. Thermodynamics for Graduate Students 3, 177
CASE, H. W. Student Evaluation of Teaching 9, 446
CELL, J. W. Retention of Mathematics 1, 47
CHRISTENSEN, N. A. Forces Affecting Education 9, 429
COMASSAR, S. Thermal Efficiencies 4, 237

DAVIDSON, H. O., AND MITTEN, L. G. Graduate Program in Industrial Engineering 4, 217
DAWSON, F. M. Bridge Between Ignorance and Understanding 1, 13
DAY, E. E. Education in Land-Grant Institutions 7, 331
DOUGHERTY, N. W. Cooperative Graduate Study 4, 200
DREHER, G. K. Cooperative Relationships Between Engineering Colleges and Secondary Schools 5, 255

EVANS, T. H. Unity Organization 2, 86
EVERITT, W. L. Education for Action . . 4, 195
EWELL, W. W., AND THOMPSON, J. T. An Adventure in Engineering Education 10, 493

FREUND, C. J. Is Less Than Graduation Worthwhile? 1, 6
FREUND, C. J. Life is Short 8, 399
FULMER, H. K. Slide Rule Instruction . . 9, 474

GAMMELL, J. Industrial Training Aids 10, 502
GAMMELL, J. The Engineer and Sales . . . 5, 291
GERARDI, J. The Squeeze is On 8, 418
GOETZ, B. E. Economics and Engineering Economy 9, 436
GRINTER, L. E. Questions Concerning the Engineering Curriculum 5, 261
GRINTER, L. E. The Gift of Engineering 7, 311
GRUMANN, H. R., AND NEWTON, R. E. Big and Little Numbers 2, 114
GURINSKY, D. H. Materials in Nuclear Engineering 2, 90

HAND, T. Training for Co-op Engineers 7, 317
HANNAH, J. A. Lustre or Glitter? 1, 18
HAZEN, H. L. A.S.E.E. Mission to Japan 10, 481
HILL, A. M. Questionnaires 7, 363
HILL, J. A. Sophomore Achievement Tests 4, 210
HOLLISTER, S. C. The Engineering Shortage Continues 2, 67
HOLLISTER, S. C. The Year of Evaluation 1, 4
HURLBUT, L. W. Curriculum for Agricultural Engineers 9, 451

JACKSON, M. W. Teaching Deflections. 2, 112
JOHNSON, A. P. Selection of Engineers . . 7, 344
JOHNSON, A. P. Tests for Applicants. 10, 497
JOLLY, T. D. Standards and the Young Engineer 1, 43

KEREKES, F. Determining Teaching Objectives....7, 323
KLOPSTEG, P. E. Engineering Research in the National Science Foundation....5, 263
KOERPER, E. C. Winning Teams....10, 498
KRATHWOHL, W. C. Theory of Work Habits....3, 157

LEHMANN, E. W. Agricultural Engineering....5, 286
LIDDICOAT, T. T. A Photoelastic Experiment....1, 36
LYON, R. N. Heat Transfer in Nuclear Reactors....2, 88

MACDONALD, C. E. Improved Preparation for College....9, 432
MATTILL, J. I., AND SPILHAUS, A. F. Resources for University Research....5, 270
MATTILL, J. I. Science and Public Relations....10, 507
MACFARLAND, F. Design Related to Research....7, 349
MCKEON, J. C. Utilization of Engineering Talent....8, 388
MILLER, J. H. Higher Education and the Problems of This Decade....8, 379
MITCHELL, D. G. Engineering Manpower....3, 134
MITTEN, L. G., AND DAVIDSON, H. O. Graduate Program in Industrial Engineering....4, 217
MOORE, R. C. Validity of Pre-Engineering Tests....10, 512
MORIARTY, J. H. How The Library Can Serve....9, 440
MUHLENBRUCH, C. W. Effectiveness of Teaching Aids....3, 146

NEWTON, R. E., AND GRUMANN, H. R. Big and Little Numbers....2, 114
NORDQUIST, W. B. Energy in Adiabatic Expansion....1, 52

OLDENBURGER, R. Mathematical Analysis....3, 170
OSBORN, C. R. Cooperative Education in Modern Industry....8, 406
OSBORNE, H. S. Engineering Planning....3, 42

POTTER, A. A. National Science Foundation Developments....2, 81
PULESTON, D. Information Services at A.E.C....2, 93

ROSE, L. A. Math Entrance Requirements Problem....8, 412
ROSENBAUM, R. A., AND BRINKMAN, H. W. On Envelopes....4, 235
RULE, J. T., A Philosophy of Graphics....9, 467
RYDER, J. D. Electronics and Communications Options—Why?....9, 463

SANDERSON, A. E. The Infinite Sphere....8, 402
SLAYMAKER, R. R., AND WRIGHT, D. K. Graduate Work in Machine Design....3, 164
SONNEMANN, G. Deflections....7, 363
SPILHAUS, A. F., AND MATTILL, J. I. Resources for University Research....5, 270
STEINMAN, D. B. The Engineer—A Parable....10, 489
STEWART, L. O. Career Possibilities for Teachers....4, 222
STORY, R. C., AND ARMSBY, H. H. Engineering Enrollments and Degrees 1951....6, 1
SWEIGERT, R. L. The Nature of Good Teaching....1, 29

TARPLEY, H. I. Back to Fundamentals....10, 504
THOMPSON, J. T., AND EWELL, W. W. An Adventure in Engineering Education....10, 493
THUERING, G. L. Industrial Engineering Employment Survey....7, 359
TRYTTEN, M. H. Problem of Scientific Manpower....2, 75

UNIECHOWSKI, S. R. Rolling With Slipping....3, 183
UPSON, R. H. Direct Approach to Deflections....8, 422

VOWLES, R. B. Engineering English: A New Strategy....8, 392

WALKER, E. A. Research and Development....3, 126
WEBER, E. Nuclear and Electrical Engineering....5, 280
WELLMAN, E. J. Polytropic Process....9, 476
WHITMAN, E. A. A Double Integral....10, 513
WILSON, J. T. Petroleum, Geology and Geophysics....5, 295
WRIGHT, D. K., AND SLAYMAKER, R. R. Graduate Work in Machine Design....3, 164